

REMARKS

STATUS OF THE CLAIMS

Claims 26, 28-31 and 33-44 were pending and were rejected under 35 U.S.C. § 103(a). Claim 26 has been amended as shown above to clarify that the RNA transcribed from the first promoter forms double-stranded RNA via self-complementing sequences, not via base pairing with RNAs already present in the cell. Support for the amendment can be found throughout the specification as filed, for example on page 22, lines 1-5 and Figures 1-3. In view of the following remarks and foregoing amendments, Applicants respectfully request reconsideration of the application.

DRAWINGS

In their previous Response (mailed November 26, 2003), Applicants submitted a replacement sheet for Figure 6 to enlarge the text of the sequence. Confirmation that the replacement Figure is acceptable is requested.

SEQUENCE LISTING

In their previous Response (mailed November 26, 2003), Applicants submitted a Sequence listing in compliance with 37 C.F.R. § 1.821 et seq. and amended the specification to insert sequence identifiers where appropriate. Confirmation that the Sequence Listing was received and that the amendments to the specification were made is respectfully requested.

35 U.S.C. § 103

All of the pending claims remain rejected as allegedly obvious over U.S. Patent No. 6,015,686 (hereinafter "Dubensky"); Cella et al. (hereinafter "Cella") and U.S. Patent No. 5,736,388 (hereinafter "Chada"). The references are applied as set forth in the previous Office Action.

In view of the foregoing amendments to the claim 26, Applicants submit that the rejection has been obviated.

In particular, the amendment to claim 26 clarifies that the double stranded RNA formed by transcription of the claimed expression cassettes is not antisense RNA, as described in Dubensky but, rather, double stranded RNA formed by self-complementing sequences within the expressed RNA molecule. The specification clearly distinguishes between antisense and double stranded RNAs as claimed, for example on page 22, lines 1-5:

As will become evident from the detailed examples below, such immunostimulatory RNA molecules may comprise sequences which form double-

stranded (ds) RNA structures within a desired cell, either by base-pairing with other RNAs already present in the cell or via self-complementing sequences within the expressed RNA molecule.

Thus, as illustrated in Figures 1-3 of the specification, the double stranded RNA formed via self-complementation includes dsRNA formed (i) by folding of the expressed RNA molecule (Figure 1); (ii) by circularization of the expressed RNA molecule (Figure 2); and/or (iii) via base-pairing of two copies of the expressed RNA molecule (also known as "true" double stranded RNA and shown in Figure 3). In contrast to folded, circular or true dsRNA which all form via self-complementation, Dubensky relates entirely to antisense RNA molecules, which are stable duplexes with mRNA or stable triplexes with sequences already present in the cell. *See, e.g.*, page 22, lines 3-4 and page 7, lines 10-13 of the specification.

The secondary references fail to supply what is missing from Dubensky. There is nothing in Cella regarding expression cassettes and nothing in Chada regarding double stranded RNA formed via self-complementation.

Simply put, Dubensky and Chada do not teach or suggest single expression cassettes including sequences that, when transcribed, form double stranded RNA via self-complementation and Cella is completely silent as to expression constructs entirely. Therefore, there is no motivation in any of the references to arrive at the claimed subject matter and no combination of references that would lead one of skill in the art to the claimed subject matter. Accordingly, Applicants request that this rejection be withdrawn.

CONCLUSION

In view of the foregoing amendments, Applicants submit that the claims are now in condition for allowance and request early notification to that effect.


The Commissioner is hereby authorized to charge any fees under 37 C.F.R. §1.16, §1.17, and §1.21, which may be required by this paper, or to credit any overpayment, to Deposit Account No. 18-1648, referencing Atty. Docket No. 2302-1631.

Please direct all further written communications regarding this application to:

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